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SYNTHESIS AND EVALUATION OF CURCUMIN ANALOGUES AS NEURO-PROTECTIVE AGENTS FOR THE ALZHEIMER'S DISEASE†

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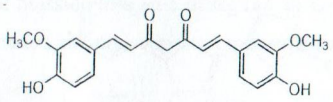
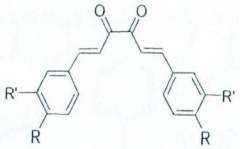
The Alzheimer's disease (AD) is the most common form of senile dementia.[1] The most important role in AD is played by the aggregation process of beta-amyloid peptide (Aß), responsible for the cytotoxic effects.[2] In this context, the purpose of this study was to synthesize new dicarbonyl compounds **1** structurally related to curcumin[3], with anti-aggregation activity against Aß.





P ıles that are currently under investigation by means of *in silico* protocols in order to rationalize the ligand-biological target interactions. (Figure 1)

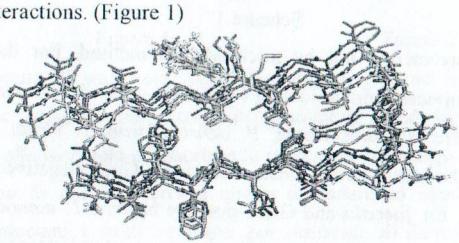


Figure 1. Docking poses of curcumin-like molecules into Aß aggregates

References:

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1. Minati T et al., *Am. J Alz Disease*, **2009**, 24,95

2. Nelson R, Eisenberg D, *Curr Opin Struct Biol*, **2006**, 16, 260

3. Ono K et al., *J Neur Res*, **2004**,75,742